

What is claimed is:

1. A computer system to present to a user data about the condition of a hydrological structure comprising:

a database for receiving and storing data about the structure;

5 at least one data source for providing data about the structure;

a communication network for transmitting the data about the structure from the data source to the database and for transmitting from the database to a user;

a user interface for presenting to the user the data transmitted from the database.

10 2. The computer system of claim 1, wherein the data source provides hydrological data, meteorological data, or structural data.

3. The computer system of claim 2, wherein the interface presents hydrological data, meteorological data, structural data, environmental data, geographical data or device data.

15 4. The computer system of claim 1, wherein the interface receives and displays real-time data from the data source.

5. The computer system of claim 1, wherein the data source provides environmental data selected from the group consisting of soil, vegetarian, river, hydrological, coastal, tidal and seismic data.

20 6. The computer system of claim 1, wherein the data source provides meteorological data selected from the group consisting of radar, tide, snow and warning data.

7. The computer system of claim 1, wherein the data source provides structural data selected from the group consisting of structural detail, attributes, plans, inspection reports, maintenance memos and bridge history data..

8. The computer system of claim 1, wherein the interface presents data from first and a second data source.

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9. The computer system of claim 7, wherein the interface presents data by displaying a graphical representation of data from the first data source onto data from the second data source.

Sub A3  
5 10. The computer system of claim 8, wherein the first data is a map showing a meteorological condition and the second data is a map showing the location of a structure.

Sub B1  
11. The computer system of claim 1 further comprising a means for prioritizing the data and a means for presenting a warning signal to a user.

10 12. The computer system of claim 11, wherein the means for presenting a warning signal is a telephone call, an e-mail, a page, a fax or an instant message.

13. The computer system of claim 1, further comprising a means for setting a threshold on the data such that when the data exceeds the threshold a high warning signal is sent to the user or a central site.

15 14. The computer system of claim 1 wherein the user interface comprises:  
a general map of an area, showing other hydrological structures  
waterways,

Sub A4  
20 a second map showing detail such as the population density, detouring options for traveling public, emergency facilities, existing evacuation routes, and real-time location of safety personnel responding to the event, and

a comparative chart of a threshold for the area that has caused a warning signal to be sent and a normal or expected data for the area.

Sub B1  
15. The system as defined in claim 13 wherein the user can select the maps and detail to be displayed.

Sub  
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16. The computer system of claim 1, further comprising which can be used to a means for calculating risk probability prioritizing deployment of emergency personnel in response to a threshold warning.

17. The method of claim 16, wherein the means for calculating risk probability uses a weighted risk function to create a ranking of risk probability.

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B1

~~18. The computer system of claim 1, wherein a user profile determines the data to be presented to the user.~~

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